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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT NO

25X1A

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COUNTRY

East Germany

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SUBJECT

Development of Electronic Microscope
OSW Number 2748

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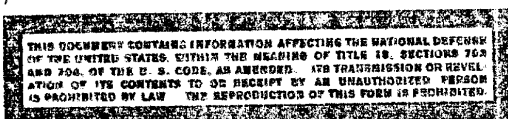
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1. The improved electron microscope under development at OSW is called Electron Microscope OSW Type Number 2748. It focusses electromagnetically. The maximum electron current (Strahlspannung) amounts to 100,000 V. The microscope is adapted for azimuthal illumination. The electronic magnification of the device is 100,000:1. The final picture (Endbild) can be magnified ten times optically. The total magnification, therefore, amounts to 1,000,000:1. The microscope is complete with pump and voltage stabilizer.
2. The resolving power of the microscope amounts to one to two millionths of a millimeter. The high degree of uniformity of the coil current (Spulenstrom) is attained by means of an electronic stabilizing device. Built into the microscope are special devices which give a signal when disturbances occur in the instrument. Because of the special construction of the device, it is possible to record directly the diffraction image of the substance which is being tested. The container for the photographic plate or the film can be inserted or taken out, so that it is also possible to use the electron microscope as a source of electrons for physical measurements.

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